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March 29, 2022

VIA E-FILING & E-MAIL

Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, NJ 08625-0350
board.secretary@bpu.nj.gov

Re: NJ Solar 22 LLC
TREC Application Number NJSTRE1547538577

Dear Secretary Camacho-Welch,

On behalf of our client, NJ Solar 22 LLC, we submit this petition pursuant to N.J.A.C. § 14:1-1.2, requesting an extension of the commercial operation deadline in the Solar Transition Incentive program for the above referenced solar project.

Pursuant to the Board's Order dated March 19, 2020, in Docket No. EO20030254 temporarily waiving certain requirements for non-essential obligations, we submit these documents via electronic filing only. We will submit the $25.00 filing fee when the Board advises that it is ready to accept such payments again.

Please do not hesitate to contact me if you have any questions. Thank you for your time and consideration and we look forward to our future correspondence.

Very truly yours,

/s/ ***Jennifer McCave***

Jennifer McCave

Enclosures
cc: Service List (via e-mail)

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

In the Matter of the Verified Petition of **NJ Solar 22 LLC** For Approval of a Waiver and Extension of the Solar Transition Incentive Program Commercial Operation Deadline for the Egg Harbor City Solar Project	)))))))))	Docket No. ________

PETITION

NJ Solar 22 LLC ("Petitioner") by its undersigned counsel, respectfully petitions the Board of Public Utilities ("Board" or "BPU") as follows:

1. Pursuant to N.J.A.C.14:1-1.2, the Petitioner respectfully requests an extension of the commercial operation ("Permission to Operate" or "PTO") deadline in the Solar Transition Incentive ("TREC") program for the Egg Harbor City solar project located at Buffalo & Cincinnati Ave., Egg Harbor Township, NJ 08215; application number: NJSTRE1547538577. This is a carport-mounted remote net metering solar project. Currently, the TREC PTO deadline for this project is September 23, 2022.
2. The Petitioner is seeking an extension of one year, because of COVID-19 related delays, including supply chain for steel (including structural steel and solar panel racking), solar panel system modules and inverters, and electrical components caused by the COVID-19 pandemic, and the current shortage of electricians and other skilled laborers to install these solar projects. (See news articles as Exhibit A)
3. The Petitioner has used best efforts to advance the solar project in a timely manner, including diligently pursuing the interconnection process, supply, and labor issues.
4. During the Board's October 28, 2021, Agenda meeting, Commissioner Chivukula stated that the BPU should pay attention to the supply chain delays that the solar industry is facing.

5. In addition, at the Energy Efficiency Committee meeting on October 27, 2021, the BPU's consultant Energy Solutions gave a presentation concerning supply chain delays. Although the presentation was focused primarily on delays related to energy efficiency products, the consultant did state that there are also supply chain delays with respect to steel that are affecting solar developers and the construction industry.
6. Recent news articles have discussed the lengthy supply chain delays for steel, solar panel system modules and inverters, electrical equipment, and other construction materials, and the shortage of electricians and other skilled workers who are qualified to install solar projects. *See* Exhibit A. For example, a November 4, 2021, news article emphasized that: "supply chain disruptions threaten to derail [solar] projects for at least the next year". Exhibit A at 11
7. According to a December 14, 2021, news article: "The U.S. solar industry will grow 25% less than previously forecast during 2022 thanks to supply chain constraints and rising raw materials costs." Exhibit A at 4.
8. A March 15, 2022, Bloomberg News article noted that a trade dispute with Southeast Asia, which supplies 80% of U.S. solar imports, "threatens to intensify existing headwinds for the U.S. solar industry, which is already seeing slower growth amid higher costs, shipping delays and supply chain disruptions." Exhibit A at 2.
9. As the Board explained in its June 24, 2021, order granting a blanket extension to currently registered TREC projects: "The Board is authorized to relax or waive its rules pursuant to N.J.A.C. 14:1-1.2, which provides that the rules may be liberally construed to permit the Board to carry out its statutory functions. In considering whether to grant a request for a waiver, the Board looks to the standards provided in this rule. In special cases upon a showing of good cause the board may relax or permit deviations from the rule. N.J.A.C. 14:1-1.2 (b). Additionally, the board shall waive sections of the rule if it adversely affects ratepayers, hinders safe, adequate and proper service, or is in the interest of the general public. N.J.A.C. 14:1-1.2 (b)(1)." I/M/O New Jersey Solar Transition Pursuant To P.L. 2018, C.17 - ; Order Addressing Requests For Extension For Projects In The Solar Transition Incentive Program (BPU Docket No. QO19010068, et. al).
10. A waiver of the Board's rules to extend the PTO deadline for the Egg Harbor City solar project will clearly benefit the public interest because the project will provide a total of

approximately .353 MW of solar energy to help the state achieve its solar goals and will decrease the electric bills of a municipality.

11. In addition, the Petitioner should not be financially penalized for the lengthy delays that were caused by COVID-19, supply chain disruptions, and labor shortages, which are all outside of the Petitioner's control. The Petitioner has invested close to $20,000 in development work on this solar project. Without an extension of the PTO deadline the project may not continue to be financially viable since the project economics are dependent on receipt of the TREC level of incentives rather than the lower incentive levels that are available under the new Solar Successor Program.

CONCLUSION

For the reasons stated above, Petitioner respectfully requests that the Board issue an expedited order approving this Petition for a one-year extension of the PTO deadline in the TREC program for the Egg Harbor City remote net metering solar project.

Respectfully submitted,

/s/ ***Jennifer McCave***

By: ________________________________

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Counsel for NJ Solar 22, LLC

Dated: March 29, 2022

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

In the Matter of the Verified Petition of **NJ Solar 22 LLC** For Approval of a Waiver and Extension of the Solar Transition Incentive Program Commercial Operation Deadline for the Egg Harbor City Solar Project	)))))))))	Docket No. ________

CERTIFICATION OF VERIFICATION

Jeremy Conner, of full age and upon his oath, deposes and says:

1. I am_the Managing Member at **NJ Solar 22 LLC**, the Petitioner named in the foregoing Verified Petition, and I am duly authorized to make this statement on its behalf.
2. I have read the contents of the foregoing Verified Petition by **NJ Solar 22 LLC** and hereby verify that the statements of fact and other information contained therein are true and correct to the best of my knowledge, information, and belief.

____

Dated: March 28, 2022

SERVICE LIST

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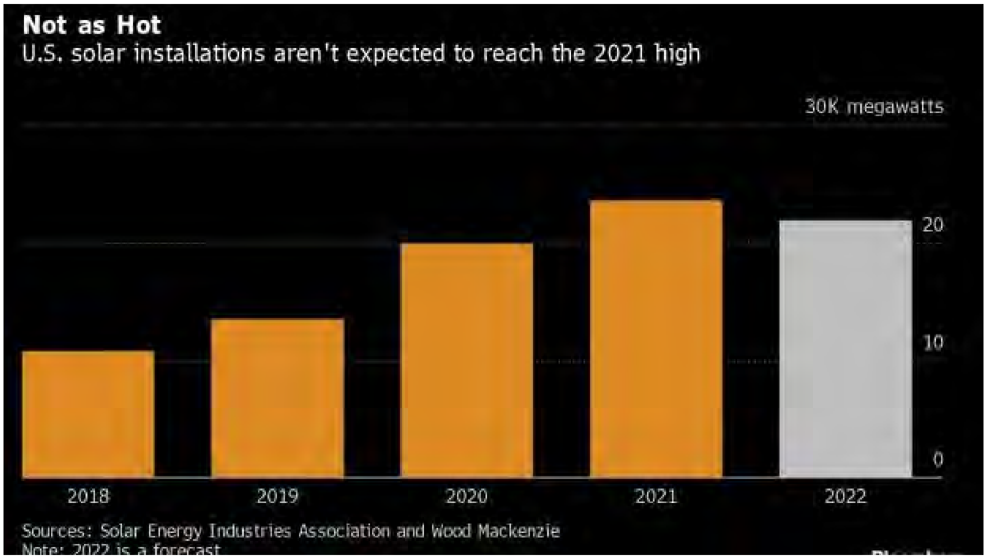
EXHIBIT A

Mar 15, 2022

Solar Trade Probe Poses Threat to U.S. Projects, Developers Say

Jennifer A. Dlouhy, Bloomberg News



BC-Solar-Trade-Probe-Poses-Threat-to-US-Projects-Developers-Say , Jennifer A. Dlouhy

(Bloomberg) -- A potential Commerce Department probe of solar imports from Southeast Asia has the potential to freeze investment in the U.S. industry leaders warned Tuesday.

The agency is set to decide by March 25 whether to formally investigate whether solar products from Malaysia, Thailand, Vietnam and Cambodia circumvent longstanding solar tariffs. An investigation could expose the imports to retroactive duties of 50% to 250%, the Solar Energy Industries Association said Tuesday.

The four countries supply about 80% of U.S. solar imports and the risk of trade restrictions could drag down shipments. The trade dispute threatens to intensify existing headwinds for the U.S. solar industry, which is already seeing slower growth amid higher costs, shipping delays and supply chain disruptions. That's a challenge to President Joe Biden's efforts to rapidly boost renewable power projects nationwide.

"It's just not a rational business risk to put product on the water and send it here when you don't know what it's going to cost when it gets here," said Abigail Ross Hopper, SEIA's chief executive officer.

Commerce is responding to a petition from Auxin Solar, a small California-based manufacturer. The key issue is whether Chinese manufacturers already subject to tariffs are circumventing those duties by assembling their products in the four Southeast Asian nations.

About 13% of utility-scale solar capacity scheduled for completion in 2022 has already been delayed by at least a year or outright canceled due to the higher costs, disruption and policy uncertainty in Washington, SEIA has said. Developers have warned the Biden administration that the Commerce Department decision would compound those challenges, and potentially tens of thousands of American jobs hang in the balance.

"The entire solar industry is watching what the Commerce Department does," Hopper said. "It's hard to overstate what it would mean -- just the initiation of an investigation."

ESG IMPACT

ESG IMPACT

U.S. solar industry will grow 25% less than expected during 2022 thanks to supply chain issues and rising costs, new report says

PUBLISHED TUE, DEC 14 2021•12:00 AM EST UPDATED TUE, DEC 14 2021•9:36 AM EST

Pippa Stevens
@PIPPASTEVENS13

WATCH LIVE

KEY POINTS

- The U.S. solar industry will grow 25% less than previously forecast during 2022, according to a report released Tuesday by the Solar Energy Industries Association and Wood Mackenzie.
- The lowered projections are due to supply chain constraints and rising costs for developers.
- The U.S. solar industry installed 5.4 gigawatts of new capacity during the third quarter of 2021, a 33% year-over-year increase.

Rows of solar panels at the Toms River Solar Farm which was built on an EPA Superfund site in Toms River, New Jersey, U.S., 26 May, 2021.
Dane Rhys | Reuters

The U.S. solar industry will grow 25% less than previously forecast during 2022 thanks to supply chain constraints and rising raw material costs, according to a report released Tuesday by the Solar Energy Industries Association and Wood Mackenzie.

The quarterly update showed that prices continue to rise as the industry grapples with the same cost pressures impacting every corner of the economy. Additionally, trade uncertainty has also weighed on the solar industry.

During the third quarter costs rose across the utility, commercial and residential solar segments for a second-straight quarter. In the utility and commercial segments, the year-over-year price increases were the highest since Wood Mackenzie began tracking the data in 2014.

Utility-scale projects are especially sensitive to these price increases. Costs had declined by 12% between Q1 2019 and Q1 2021, but with the recent spike in price for materials like steel, the prior two years of cost declines have now been erased.

In addition to general supply chain issues, solar shipments have been disrupted for months after an anonymous group filed a petition with the U.S. Department of Commerce asking tariffs to be extended to Thailand, Malaysia and Vietnam. The petition was dismissed in November.

Read more about clean energy from CNBC Pro

Bank of America names top stock picks as Russia-Ukraine conflict hastens Europe's energy transition

Morgan Stanley says buy these stocks for energy security and a transition to renewables

MARKETS CNBC TV WATCHLIST MENU

Wall Street analysts pick their favorite solar stocks as global energy prices soar

Still, U.S. installed capacity jumped 33% year over year to 5.4 gigawatts, marking the most additions on record for the three-month stretch between July and September. All told, the U.S. has a total generating capability of about 1,200 gigawatts, according to the Public Power Association.

Residential solar installations topped 1 GW during the third quarter, with more than 130,000 systems installed during a single quarter for the first time on record.

Utility-scale also set a record, with 3.8 GW installed during the quarter. Not all solar segments registered growth during the period, however. Commercial and community solar deployments declined 10% and 21%, respectively, quarter over quarter due to interconnection issues and equipment delivery delays.

While the industry is expected to grow less than previously forecast during 2022, the Build Back Better plan's passage could fuel growth looking forward.

"The U.S. solar market has never experienced this many opposing dynamics," said Michelle Davis, principal analyst at Wood Mackenzie. "On the one hand, supply chain constraints continue to escalate, putting gigawatts of projects at risk. On the other, the Build Back Better Act would be a major market stimulant for this industry, establishing long-term certainty of continued growth."

Should the bill be signed into law, Wood Mackenzie forecasts that the U.S. will install an additional 43.5 GW of solar capacity over the baseline forecast between 2022 and 2026.

"This would bring cumulative solar capacity in the United States to over 300 gigawatts, which is triple the amount of solar deployed today," the report said.

The bill includes an extension of the Investment Tax Credit, which has been instrumental to the U.S. solar industry's growth.

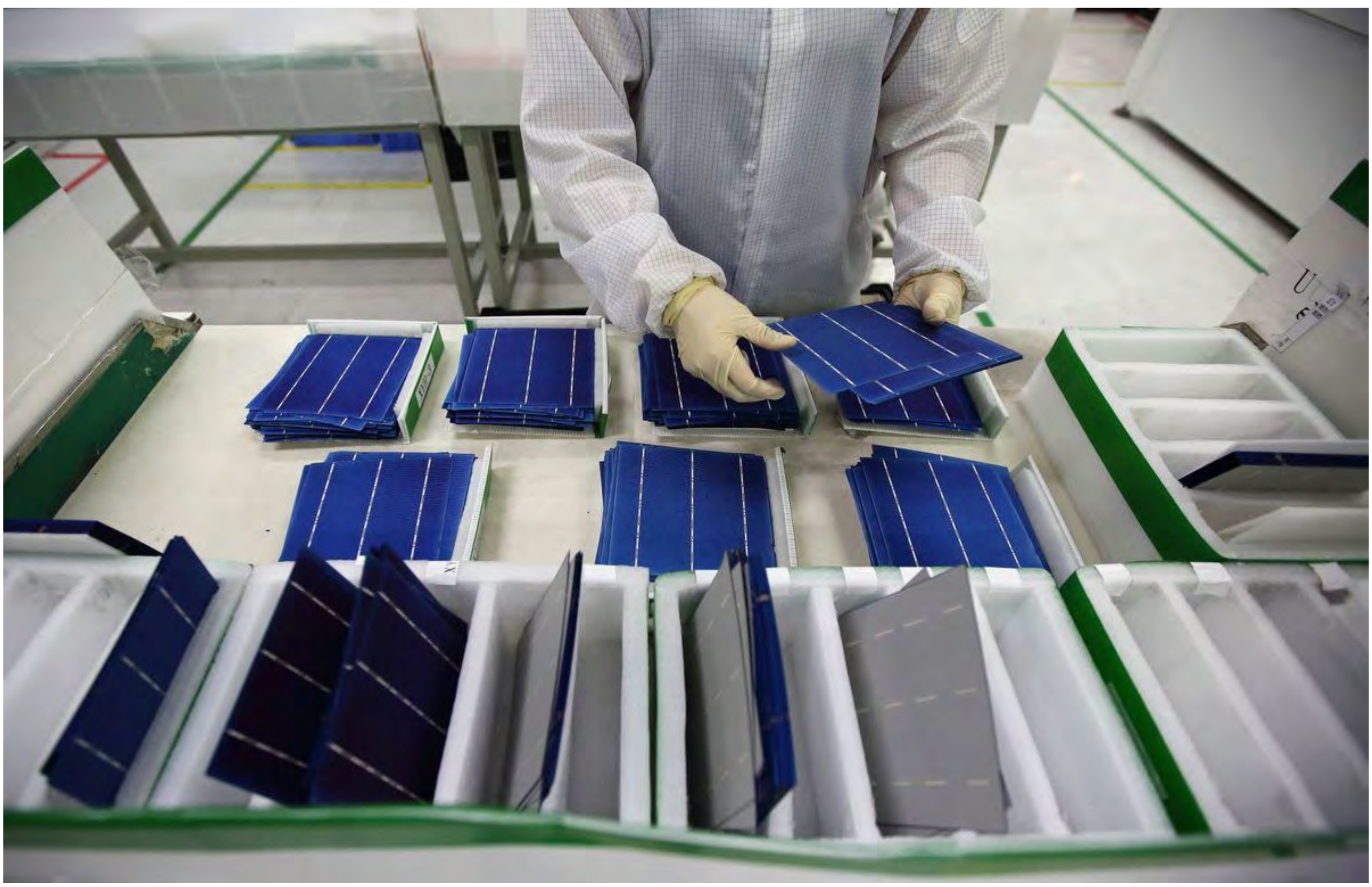
Markets

Solar-Power Giants Warn of Delays Amid Supply-Chain Crunch

By Dan Murtaugh +Follow

September 30, 2021, 7:31 AM EDT
Updated on September 30, 2021, 12:25 PM EDT

- Panel makers ask customers to delay purchases, slow installs
- 'This imbalance will break the supply chain,' suppliers say



An employee performs a final inspection on solar cells on the production line at the Trina Solar factory in Changzhou, Jiangsu Province, China. *Photographer: Tomohiro Ohsumi/Bloomberg*

The world's biggest solar manufacturers are warning of looming panel shortages amid a snarled supply chain and rising material prices.

Companies including Longi Green Energy Technology Co. and Trina Solar Co. said in an open letter that their output will be constrained because key component suppliers will be running at 70% in the near future. They're asking customers to delay purchases and slow installations to avoid a rush to meet end-of-the-year deadlines.

This rare appeal reflects the stress that's taxing supply chains in China and around the world. Higher costs for materials and delayed deliveries threaten to slow the deployment of solar panels just as world governments are getting more serious about fighting climate change. A panel shortage may also add to trade tensions between the America and China after some shipments were detained at the U.S. border because of concerns over human rights violations.

Solar Makers Plan Price Rise Amid China Power Crunch

"This plea is unprecedented, and indicates how much stress Chinese manufactured goods supply chains are under," Jenny Chase, head solar analyst at BloombergNEF, said by email.

The latest hit to the solar industry is the surging price of industrial silicon, the metal used to make polysilicon. Prices have surged 300% since August after a top producing region in China throttled back output amid a power crisis. Prices for glass and adhesive film needed to make panels have also climbed.

"This imbalance will break the supply chain and seriously endanger the healthy and sustainable development of the industry," the companies said in a statement.

The supply chain has been disrupted by shortages of both materials and electricity to run their factories. China's central government officials ordered the country's top state-owned energy companies -- from coal to electricity and oil -- to secure supplies for this winter at all costs.

The signees, which also included JinkoSolar Holding Co., JA Solar Technology Co. and Risen Energy Co., combined to account for more than half of all solar panel production last year, according to BNEF.

– With assistance by Brian Eckhouse

(Updates with comment from analyst in sixth paragraph)

HIRING

Clean Energy Businesses Appeal to Congress for Help Finding Workers

At a small business subcommittee hearing on Tuesday, business owners said their efforts alone aren't enough to overcome a labor shortage.

BY GABRIELLE BIENASZ, EDITORIAL ASSISTANT, INC. @GBIENASZ

An employee with Ipsun Solar installs solar panels on the roof of the Peace Lutheran Church in Alexandria, Virginia, on May 17, 2021. Andrew Caballero-Reynolds/Getty Images

Small businesses in the clean energy industry have been taking steps to remedy a worker shortage. Now they're calling on Congress for extra help.

At a hearing in the House subcommittee on Innovation, Entrepreneurship, and Workforce Development on Tuesday, business owners and advocates spoke with representatives about how to develop talent in clean energy fields, as well as how to support the industry in general following the pandemic and transition from fossil fuel use.

Leticia Colon de Mejias, CEO of Windsor, Connecticut-based Energy Efficiencies Solutions, told the panel that finding qualified staff is the hardest part of running her company. "It is the thing that ails my industry overall," she added.

Small businesses in the sector also need federal support to keep current workers' skills up to speed with quickly evolving technology, Colon de Mejias said. Bills like the Blue Collar to Green Collar Jobs Development Act of 2019, which directs the Department of Energy to create training programs for underrepresented individuals, could help, she said.

In the meantime, Colon de Mejias is working on the problem. She is co-chair of Efficiency For All, a nonprofit that offers training and internship programs to help energy workers obtain needed certifications. But such efforts alone are unlikely to suffice. For example, to meet President Biden's goal of 100 percent clean energy by 2035, the number of workers who spend over 50 percent of their time on solar power would need to more than quadruple to more than 900,000 by that year. Without policy intervention, the solar industry will reach only 400,000 workers by 2030, according to industry advocates.

James Hasselbeck, director of operations at ReVision Energy, said his South Portland, Maine, solar power and renewables company offers an in-house training program to develop workers. But to truly address the problem, he added, U.S. schools need to implement trade programs and educate students about solar energy. "A common piece of feedback we get from our employees is, 'Man, I wish I knew that there was this opportunity when I was going to college,'" he said.

Here's how supply chain issues are affecting renewable energy projects

Supply chain disruptions could 'derail' solar power projects for the next year.

Image: UNSPLASH/Jeroen van de Water

This article is published in collaboration with

Quartz

04 Nov 2021

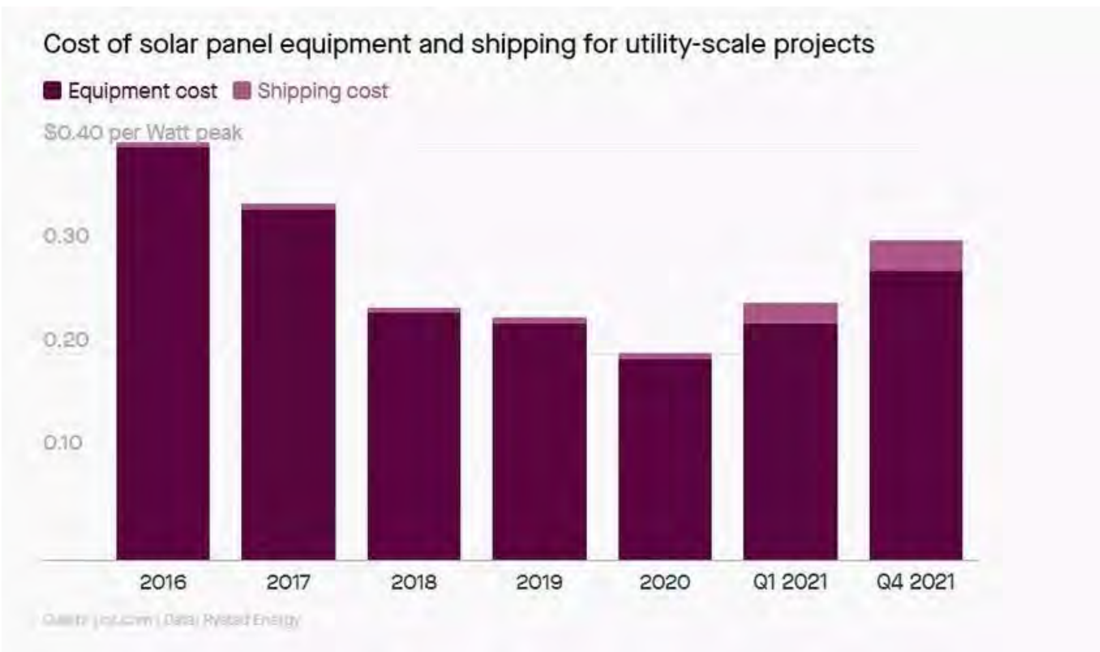
Nicolás Rivero
Writer, Quartz

- Solar power was at its cheapest in 2020.
- However, supply chain disruptions mean that 56% of worldwide utility-scale solar projects planned for 2022 could be postposed or cancelled.

- Below is a breakdown of the causes behind this problem, which are centred around the current price increases and cost uncertainty of solar equipment.

In 2020, solar power had never been cheaper. The price to install a new residential solar panel system in the US has fallen roughly 64% since 2010, according to National Renewable Energy Laboratory estimates. Since 2005, utilities, businesses, and homeowners have installed more panels almost every year, representing about 700 GW of solar panels worldwide.

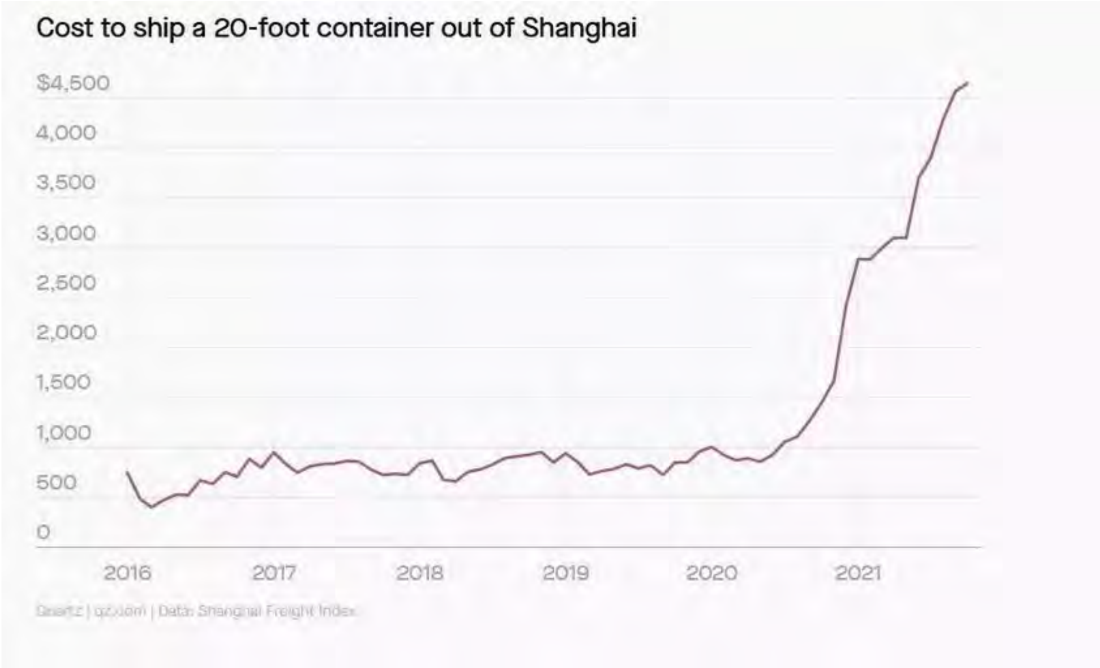
But supply chain disruptions threaten to derail projects for at least the next year. Analysts at the consulting firm Rystad Energy estimate rising shipping and equipment costs are threatening to postpone or cancel 56% of worldwide utility-scale solar projects planned for 2022. Given these items represent as much as one-third of project costs, even a small price can turn a narrowly profitable project into a money-loser. Utility companies' solar plans could be hit especially hard.



Quarter 4 in 2021 has seen a rise in price for solar panels. Image: Quartz

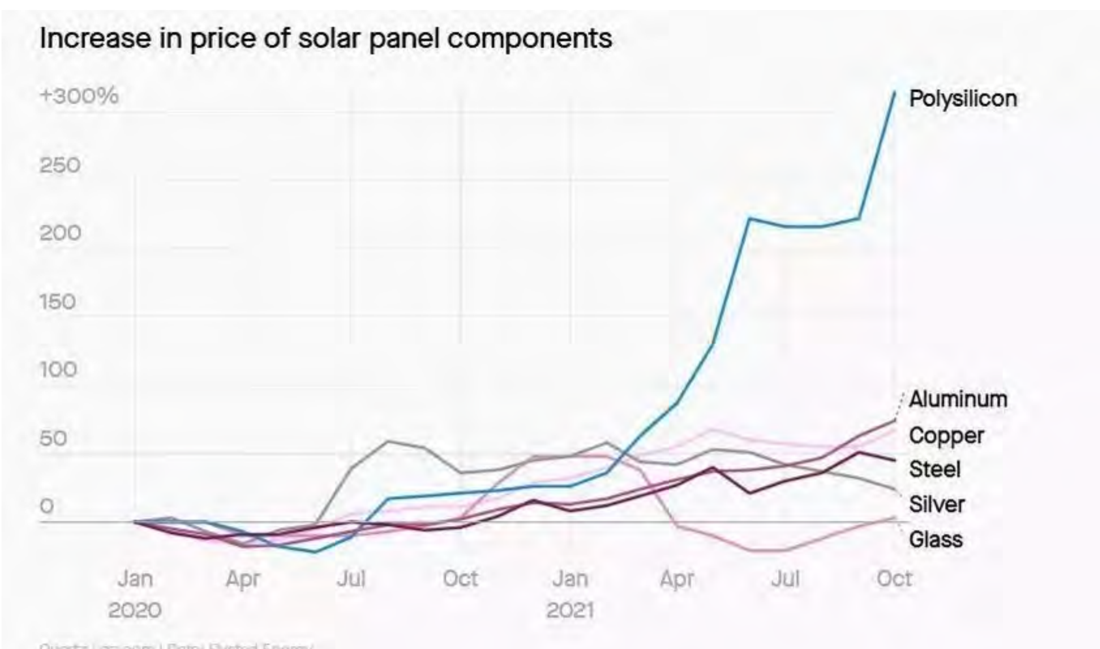
Supply chain snarls send up shipping, silicon prices

Two main culprits are driving up the cost of solar panels. First, shipping prices have skyrocketed, especially for containers leaving China, where most solar panels are manufactured. The Shanghai Freight Index, which tracks the price of sending a container from Shanghai to a collection of ports around the world, has increased roughly six-fold from its pre-pandemic baseline.



A great increase in cost. Image: Quartz

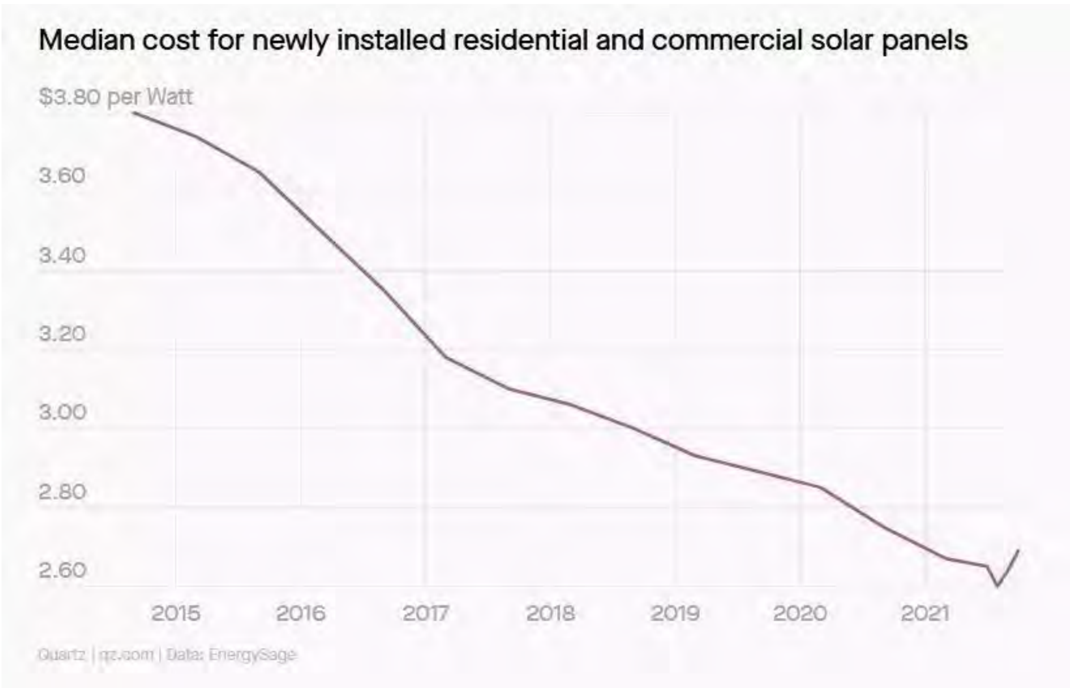
Second, key solar panel components have become more expensive—particularly polysilicon, the main material used to make solar cells. Polysilicon production has been hit especially hard by the bullwhip effect: There was an oversupply of polysilicon before the pandemic, which prompted manufacturers to slam the breaks on production once Covid-19 hit and countries began entering lockdown. Then, economic activity bounced back faster than expected, demand for raw materials came roaring back, and polysilicon miners and refiners struggled to catch up, sending prices soaring.



'Demand for raw materials came roaring back, and polysilicon miners and refiners struggled to catch up, sending prices soaring.' Image: Quartz

Solar panel costs rise for the first time in years

Rising prices haven't had a big effect on projects underway in 2021, but next year's projects are more at risk. The price of installing a new solar panel on a home or business is now rising for the first time in at least seven years, according to data from the solar panel marketplace EnergySage.



'The price of installing a new solar panel on a home or business is now rising for the first time in at least seven years.' Image: Quartz

So far, homeowners and businesses haven't been as badly impacted by rising costs as utility companies, according to EnergySage CEO Vikram Aggarwal. That's because shipping and materials account for a much larger percentage of the overall cost of a utility solar project than a residential or commercial project. Homeowners and businesses wind up spending much more, proportionally, on costs like hiring a contractor—so if shipping and equipment costs tick up a bit, it's less likely to financially make or break a project.

What's the World Economic Forum doing about the transition to clean energy?

But even so, solar panel vendors are starting to worry. Aggarwal says he's heard of cases where suppliers couldn't find the type of solar panel their customer wanted because it wasn't in stock, so the customer canceled their order. "Consumers like certainty, especially when they're buying a big ticket item like this that will cost them thousands of dollars…and be on their home for the next 20 to 30 years," Aggarwal said. It's getting harder for vendors to deliver that certainty because they can't be sure if, when, and at what price they'll be able to order a panel.

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Written by

Nicolás Rivero, Writer, Quartz

This article is published in collaboration with Quartz.

The views expressed in this article are those of the author alone and not the World Economic Forum.

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All the economic data you need
From jobs to GDP, these key indicators provide a comprehensive, up-to-date picture of the US Economy.

America desperately needs 1 million more construction workers

By Vanessa Yurkevich, CNN Business
Updated 6:36 PM ET, Sun July 11, 2021

New York (CNN Business) — Matthew Messer hauls solar panels on the roof of a home in Long Island, New York, hoisting them one by one in the 100-degree June heat. Messer is the owner of New York Solar Maintenance, but these days he's working right alongside his lead technician seven days a week as business booms.

"This is not the perfect way to be spending my time right now," Messer says of his days spent up on roofs. "But it's what needs to happen."

That's because Messer says he can't find anyone to hire. His small business has three open roles, ranging from entry level to lead technician — one example of an industry-wide problem as a labor shortage meets increased demand.

Related Article: Millions of jobs and a shortage of applicants. Welcome to the new economy

New home construction and improvement are surging, thanks to the lack of inventory in a red-hot housing market and more people working from home. In an industry already short on workers before the pandemic, construction businesses will need to hire 430,000 workers this year and 1 million more over the next two years in order to keep up, according to Associated Builders and Contractors.

"The phone is ringing off the hook," Messer said. "I am expanding as quickly as I can, but right now that's governed by the amount of skilled technicians I can bring on."

The construction industry shut down for a few months last year during the pandemic — but was quickly deemed essential, allowing paused projects to continue. But in that short time, the sector lost more than 1 million workers. The industry has recouped nearly 80% of its workforce since then, but is still down 238,000 workers from pre-pandemic levels as of June, according to the Labor Department.

"We're losing more people than we're bringing into the industry," said Matthew Schimenti**,** owner of Schimenti Construction Company. "People made decisions in their lives to leave the region and the industry [during the pandemic]. It was like putting a puzzle back together to restart where we literally called a timeout."

Schimenti Construction — which primarily works on commercial projects — has 20 open positions across all skill levels. They've even hired two internal recruiters just to look for talent. Commercial construction remained largely flat during the pandemic, but it's expected to pick up as the US economy returns to pre-pandemic norms.

"If we wished it was just a bad dream and it would go away and everybody would just come back— that's not going to happen," Schimenti said.

Pay is not the issue

When Matthew Messer started noticing a shortage of workers, he realized he quickly had to raise wages to remain competitive. His remaining employees were being poached by other companies. In the last four months, he's raised entry level wages by 40%. That's on top of rising costs of materials including steel and wood which he says get passed down to the customer.

Related Article: The fastest way to fix a labor shortage: Pay more

"I was offering $18-$22 an hour and I got no applications. I increased it to $23 and I got none. I increased it to $25 and they're starting to trickle in right now," said Messer. "It was a dramatic increase, but in order to grow the business, I need technicians."

But unlike other industries facing labor shortages, such as restaurants and hospitality, construction pays nearly double the average hourly rate. A restaurant or hotel worker can make $18.23 per hour on average, compared to $32.86 an hour for a construction worker, according to the Bureau of Labor Statistics.

"You can earn a great living while you learn. If you have the desire to learn multiple crafts, we'll teach you multiple crafts," said Michael Bellaman, President and CEO of Associated Builders and Contractors. "Our members invested $1.3 billion last year in upskilling their existing workforce."

Lack of shop classes and an aging population

feeder into construction work. The lack of shop classes has made it harder for the industry to attract and recruit young talent, according to Bellaman. That, plus an aging construction workforce — the average age is 43 — has created a hole in employment.

"We want to go out to every area where we can attract top talent. Once we get them into the industry, we're educating and upskilling," Bellaman said.

Related Article: American workers don't want to go back to normal, and that makes sense

Teaching new skills at no additional cost to workers is geared toward retention. In the last decade, the average monthly turnover rate in construction has been 5.2%, compared to 3.6% for all industries, according to the Bureau of Labor Statistics. And until workforce numbers meet demand companies will increasingly look to technology to replace open positions.

"The industry is using technology and innovation to basically handle this disruption with regards to the labor shortage. A lot of use of drones, robotics, and additive manufacturing," Bellaman said. "That though, creates new career opportunities in those innovation and technology spaces. And that's very attractive to the younger generation."

-- Kate Trafecante contributed to this report

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SUPPLYCHAIN**DIVE**

DIVE BRIEF

Steel and roofing materials shortage hamstrings construction industry

Published Oct. 7, 2021

Sarah Zimmerman
Associate Editor

Dive Brief:

- Shortages of key materials including steel and PVC pipes continue to hamstring the construction industry, pushing up prices and delaying deliveries, according to August data from Gilbane Building Company.

- Prices of adhesives, drywall, electrical equipment, steel and PVC pipe fixtures all rose, with inventories of those materials contracting and deliveries delayed, the construction firm reported.

- Lumber, which saw a meteoric rise earlier this year, was one of few materials to see a price decline, according to Gilbane. But even that may not last for long, as lumber futures have soared nearly 40% since mid-August.

Dive Insight:

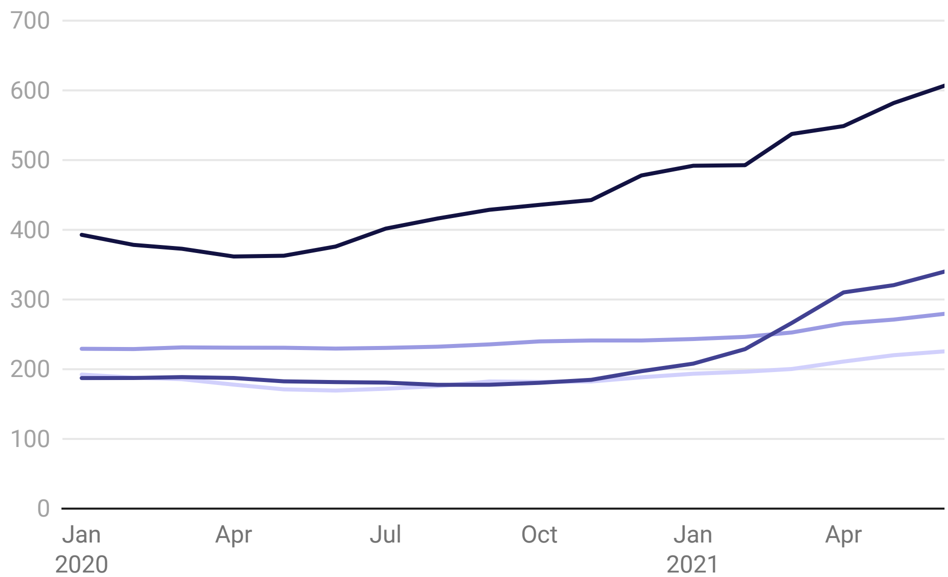
Mounting shortages and rising costs have left contractors in some cases delaying projects or using substitute materials when possible.

Steel, roofing and insulation materials are some of the most difficult products to get right now, said Ken Simonson, chief economist at the Associated General Contractors of America. Bar joists, which are used to frame roofs, can have lead times of anywhere from 10 months to 14 months.

Costs have also soared, with the index for steel mill products rising 123% YoY in August, according to the Bureau of Labor Statistics' Producer Price Index. Copper and brass mill shapes jumped 45.3% YoY, while plastic construction products saw increases of just under 30% YoY.

Prices of construction materials soar

Producer price indexes for select construction commodity groupings, not seasonally adjusted



Note: The Bureau of Labor Statistics indexes the PPI to 1982. Prices in 1982 are equal to 1
data.

Chart: Sarah Zimmerman/Supply Chain Dive • Source: U.S. Bureau of Labor Statistics, retrieved fı

"It's a real strain to get the full project done and staying within budget," Simonson said.

In some cases, contractors are substituting materials to cut down on project times. Customized beams can be used in place of bar joists, for example, though they're heavier and often require a redesign of other structural elements.

"While the contractor may save time in substituting materials, they have to get the project manager to agree to a redesign and a higher expense, which may not always happen," said Simonson.

In many cases, it's difficult to even find potential substitutes. Recent extreme weather events have compounded supply shortages that began with the pandemic, dealing a devastating blow to the construction industry, Simonson said. The February winter storm in Texas shut down plants that supply raw materials for construction plastics, while Hurricane Ida led to weekslong power shutdowns at chlor-alkali plants that make key ingredients used in PVC pipes.

National nonresidential construction spending fell 0.4% in August, with spending declining on a monthly basis in 10 of the 16 nonresidential subcategories, according to U.S. Census Bureau data analysis from the Associated Builders and Contractors. Rising materials costs and a shortage of labor are "inducing more project owners to postpone work," Anirban Basu, ABC's chief economist, said in a statement.

With less demand for nonresidential projects, contractors are largely absorbing the higher costs. Input costs to construction rose 28% from April 2020 to August 2021, according to an emailed analysis of BLS data from the Associated General Contractors of America. Meanwhile, bid prices only rose 5% over the same period.

Various shortages and other supply chain bottlenecks are expected to last into next year, if not into 2023, said Simonson.

"I think it will be a very long time before we see things get back to whatever normal was before this," he said.

This story was first published in our weekly newsletter, Supply Chain Dive: Procurement. Sign up here.

Recommended Reading:

SUPPLY CHAIN DIVE

Shortages have created a 'traffic jam' in construction: Lennar

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SUPPLY CHAIN DIVE

COVID-19 pandemic affects delivery rate for building materials

Jeremy Ford 9/23/2021

© Provided by Paducah-Cape Girard KFVS-TV
Many businesses see major delays in ordered building supplies.

CAPE GIRARDEAU, Mo. (KFVS) - Building supply chain disruptions caused by COVID-19 are affecting the local housing market.

As new houses are being built across the Heartland, homebuilders are finding it harder to keep up with the demand due to a lack of materials.

"It's really a guess on the manufacturers part on when I'm going to get material," said Roofers Mart Branch Manager Stan Miller.

He said supply delays for roofing material have been astronomical since the start of the pandemic.

"We've gone from a two-week lead time when we order vinyl windows, to a 12-to-14-week lead time," he continued.

He said the delay in material delivery is due to a lack of workers in manufacturing and processing facilities due to COVID-19.

"They would have 50 employees each day, in order to be compliant with COVID. They've had to spread their employees out for social distancing. And now they don't have room for 50 so they would have 25 come to work in a decreased capacity," he said.

Catalina Custom Homes owner Richard Seabaugh said the lack of supplies has also affected his business by making it take longer to complete a new home construction.

"A year and a half ago we could've knocked one out within 5 to 6 months. Now with the supply chains and labor shortage, we're looking at more like a solid year from start to completion," he explained.

He said not only is it taking longer to get materials, but the price has also increased.

"We really, actually, started slowing down due to the fact is that the price increases on them went up almost 600 percent on certain materials," he said.

This affects not only his bottom line, but the home buyers as well.

"It was an ongoing conversation with home buyers that already purchased homes. I said we need to renegotiate price because materials are so high, or we need to do a slowdown and most of my buyers are well aware of the time frame and are more willing to work with us," he said.

Miller said his best advice to anyone looking to purchase a new home or do a remodel, is plan way in advance to make sure you get your materials on time and the best prices.

CONSTRUCTION**DIVE**

DEEP DIVE

Soaring material prices, supply chain delays spook owners and developers

The rising cost of many materials and increased sourcing headaches have project owners rethinking their return to normalcy and threaten to derail construction's expected resurgence.

Published April 12, 2021

Joe Bousquin
Senior Reporter

This story is part of a series of articles looking at the COVID-19 pandemic's effect on the construction industry and how an expected rebound in construction work later this year could be slowed by a variety of forces. Click here for other articles in the series and check back for more throughout the year.

The road to recovery may be longer than you think.

As the second quarter of 2021 kicks off, contractor confidence is high, with plenty of optimism that the coming resurgence of re-started projects will lift construction firms from the abyss of COVID-19 to go even beyond their pre-pandemic heights. Just look at the Associated Builders and

Contractors' Confidence Index, which is now positive for sales, profit and staffing level expectations for the next six months.

The only problem is, to build things, contractors need willing owners to finance them. They may become more scarce in the coming months, as continued kinks in the global supply chain drive material prices higher, extend delivery times and make already anxious developers more skittish.

Chris Bailey
Courtesy of XL Construction

"People are starting to become a lot more buoyant and confident around things," said Chris Bailey, senior vice president of integrated solutions at San Francisco Bay Area-based general contractor XL Construction, who recently authored a report to clients about supply chain hurdles. "But there needs to be some degree of caution as to how we re-engage with all of this, because we can't just do what we did in 2019. Product is not coming online as quickly as projects are."

Cold feet, again

That juxtaposition is causing owners who want to get back to work to reconsider if now is the best time to do so. At Fort Worth, Texas-based Century Mechanical Contractors, secretary and treasurer Diane Mills said the recent explosion in materials costs is inducing sticker shock in her clients, especially those who priced their projects before the pandemic, but then hit the pause button at its outset.

As those owners re-enter the market, they've had to adjust their expectations or re-consider their projects all over again, she said.

"Owners are coming back and saying they want to build, but they set their budgets two years ago," Mills said. "What might have cost $100,000 if they started last June is now probably closer to $160,000. So they're even having to pull back again and rethink what they're doing, because it's out of budget."

Finance professionals are also witnessing a second round of cold feet among developers trying to resuscitate deals in the current environment.

Jake Clopton
Courtesy of Clopton Capital

"I had a developer come back to the table with a deal he mothballed last year, but now it was going to cost him 20% more," said Jake Clopton, founder of Chicago-based commercial mortgage broker Clopton Capital. "He said he couldn't do it, that it didn't make sense to build right now. I mean, in the end, it's really all just a math problem."

Clopton said he's had several developers with land carrying costs approach him to kickstart projects, but with old GC bids. When they've re-priced them, and evaluated the current state of the lending market, where bank loans can be non-existent for some project sectors and private money loans can have 10% interest rates, their deals are no longer penciling out.

"They're just uneconomical at these levels," Clopton said.

There's even evidence that a recent increase in construction spending above pre-pandemic levels isn't due to more projects coming online, as much as it is the need to absorb higher costs. Construction spending climbed 5.3% from February 2020 to a seasonally adjusted annual rate of $1.52 trillion, the Census Bureau reported April 1.

But prices for goods used in construction jumped 3.5% from February to March and 12.9% since March 2020, representing the highest monthly and yearly increases in the 35-year history of tracking that data, according to the Associated General Contractors of America.

"These material cost increases—steep as they are—tell only part of the story," said Ken Simonson, AGC's chief economist, in a statement on Friday. "They are based on prices the government collected a month ago, and they fail to capture the notices contractors are receiving daily about longer lead times, shipments held to a fraction of previous orders, and other challenges."

Projects aplenty

That said, projects are waiting in the wings.

"Here comes the tsunami of economic and employment growth across America," said Anirban Basu, chief economist for Associated Builders and Contractors, in a statement last week about the March jobs report, which included 110,000 new construction jobs, with 73,100 of them in the beleaguered nonresidential segment. "With more stimulus on the way, the United States may end up growing faster than China this year, which would be the first time that occurred in decades."

Contractors have been adding workers as they've been building up their backlog of new work, much of which they cannibalized in 2020 simply to stay in business. Indeed, overall backlog rose to 8.1 months in February, just 0.7 months shy of its pre-pandemic heights.

> **"Here comes the tsunami of economic and employment growth across America."**
>
> Anirban Basu
> *Chief Economist, Associated Builders and Contractors*

But the new question is how many of those projects will get derailed again, before they can be re-started, due to skyrocketing material prices. The global supply chain has been stretched thin after nearly a year of dormancy, and hasn’t been able to achieve anywhere near its pre-pandemic, just-in-time efficiency.

“During this shutdown, a lot of shipping was taken out of commission because there was nothing to transport,” said Bailey. “People weren’t willing to put money into maintaining shipping and transportation equipment when there was no revenue at the other end of it, so things have fallen into a state of disrepair. What we're seeing now is that even when product is ready to leave, the transportation market is trying to catch up.”

The fact that the mammoth Ever Given container ship blocked the Suez Canal, one of the world's business cargo routes, for six days in March can't help. "That will just provide more delay on top of everything that was already delayed," Bailey said.

Longer lead times

No matter the reason behind the delays, contractors say longer delivery times are having a severe impact on construction schedules.

Scott Higgins
Courtesy of Pepper Construction

"If you had a project that was ready to buy structural steel and precast wall panels for a new distribution facility, if you got in line today, it would be nine or 10 months before you got that material," said Scott Higgins, senior vice president at Chicago-based Pepper Construction Company. "The impact is going to be very simple: higher prices and longer schedules."

Back in Fort Worth, Mills said opportunity for jobs is there, but material suppliers can't keep up with orders.

"We could do the work," Mills said. "We just can't get the equipment in many cases."

She pointed to a recent quote for air handling units for schools, which usually require a lead time of six to 12 weeks. Her suppliers recently told her they would take four to six months instead.

> **"The impact is going to be very simple: higher prices and longer schedules."**
>
> Scott Higgins
> *Senior Vice President, Pepper Construction*

"Well, if you have a summer project that you need to start June 1 and you're bidding it today, you're probably not going to get your equipment in time to get it done," she said.

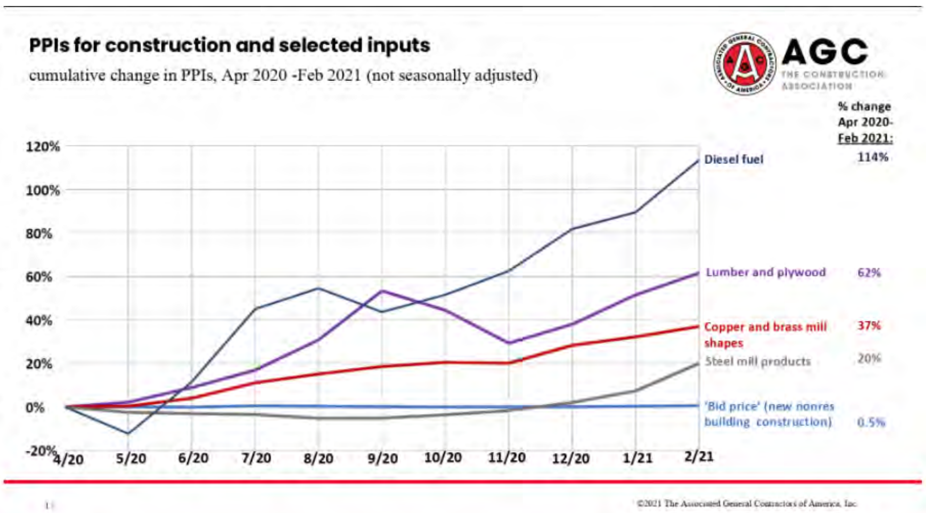
At the same time, she says pressure in her local bid environment has heated up.

"There's a lot of work being bid here," Mills said. "But there are also a lot of people needing work to fill their backlog again, so it's very competitive. Even though the pricing is higher, the margins are lower."

High prices headed higher

Construction material prices have risen so sharply in 2021 that the Associated General Contractors of America last week issued a rare Construction Inflation Alert, a move the group hasn't taken since 2008, citing a 12.8% jump of input costs for projects since the pandemic began.

While that double-digit rise is notable in itself, some foundational materials for contractors have spiked even more, with lumber and plywood gaining 62%, and steel mill products recording a 20% jump since April 2020, according to AGC's analysis. Diesel fuel, the lifeblood of the heavy equipment needed to build major projects, has surged 114%.



Material costs have surged, but not bid prices.

Courtesy of Associated General Contractors of America

But while those costs have been leaping upwards, contractors looking to rebuild their depleted backlogs haven't been able to lift their bid prices by anywhere near the same amount, eking out just a 0.5% gain over the same period, according to AGC.

Read More in **Residential Building**

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Nov 03,

"Contractors should become even more vigilant about changes in materials costs and expected delivery dates and should communicate the information promptly to current and prospective clients," read the alert from AGC, which is hosting a webinar on rising costs and strategies for dealing with them this week.

A recovery coming off the tracks?

With higher prices, longer lead times and skittish developers, the real question then becomes whether these issues, which have emerged as contractors desperately try to put the impacts of the pandemic behind them, can actually derail the coming recovery.

“I think to a degree, yes,” said Mills.

Clopton feels confident that supply chain issues will eventually work themselves out, especially given the enormous amount of pent-up demand from previously sidelined projects coming back online, coupled with the $1.9 trillion in funding from the American Rescue Plan, and a proposed $2 trillion infrastructure funding package.

“You've got an enormous amount of liquidity in the system that's looking to do projects and get the economy moving,” Clopton said. “And while demand [for materials] is way outpacing the increase in supply, I think everybody expects that to be transitory.”

Indeed, Basu, the ABC's chief economist, voiced a similar view Friday after the most recent price jumps emerged.

"While we will likely see further materials price increases going forward, the pace of increase may not be as rapid," Basu said in a statement. "As the COVID-19 pandemic fades, suppliers will be better positioned to respond to demand. That will help moderate price increases at some point, though in the very near-term, contractors should anticipate additional cost escalations.”

The last fly in the ointment that gives construction market observers pause is how long the current impacts of the pandemic took to actually materialize on jobsites.

While an absence of toilet paper and PPE were hallmarks early in the pandemic, the more recent economic pains bearing down on materials and the supply chain now weren’t felt until six to nine months after the pandemic began. With a quarter of 2021 already in the rearview mirror, it could take just as long for them to unwind themselves.

At least, that's Bailey's point of view at XL Construction.

"These disruptions to global trade are driving up the cost of shipping goods and adding a new dimension to economic recovery," Bailey wrote in his report to clients. "The chaos has forced buyers to pay record prices to secure space in whatever containers are available to move. This is predicted to remain an issue until early 2022."

How Will The Steel Supply Chain Recover Post-COVID?

By Nick Evens November 5, 2021 12:04 am

According to the Thomas 2021 Q3 Sourcing Activity Snapshot, the demand for steel has increased in 2021. The main drivers of this demand were the building industry (with lots of large-scale construction projects all over the world), the car manufacturing industry, the machinery industry, and others.

However, the energy crisis and the constant problem with the supply chain are seriously were forced to change their actions by either stocking up on steel (when it was possible) or trying to find suppliers closer to home.

While the economy and various industries have popped up right back in many areas of the world, the increasing energy costs and the fact that many supply chains are either broken or delayed put everything on pause. Worldwide, we still have a huge problem to solve. The pandemic showed the rulers of the world that we need to re-think the supply chain and its management in order to make it more flexible and less dependant on the human factor.

Still, for now, industry leaders and businesses are alone in their efforts to recover and continue making a profit even in the current situation. However, this is a lesson to be learned, as now is the time to analyze what could've gone differently.

Support from Key Players

Key players in the production chain, such as the Steel Supply Company, must be more involved in smoothing out the supply chain. This can be done by optimizing the storage space and inventory to make room for more ready-made products. This way, when the demand increases, it will be easier to get contracts when you already have the product. Also, your production won't be affected by any temporary supply shortages.

Data Analysis and Forecasting

Most companies involved in the steel industry might have had an easier time with the pandemic if they would've made use of modern data analysis and forecasting software. This type of software is used by businesses everywhere to understand market trends and find new ways to improve production without increasing costs.

While the pandemic was an event that no software could have predicted, once it happened will be easier to identify problematic supply chains and find solutions using different providers or supply routes.

This type of software is backed by real-time Big Data and Artificial Intelligence algorithms that can be trained to find holes in your planning and offer pertinent solutions.

Technology

While we don't have self-driving trucks (yet), companies can use technology to optimize the supply chain and automate their own warehouses.

At a large scale, automation technology can be used to speed up the supply chain by using an automated admittance system in border crossing points, international ports, and airports. However, the implementation of such a mega-project can take years.

At a business level, automation can help reduce warehousing costs by cutting down the number of employees needed for stocking, handling, and managing merchandise. An automated warehouse can improve efficiency and reduce labor costs, but it also requires a major initial investment.

It's also a matter of better organizing the space inside the warehouse (machines don't need that much extra space to operate), which means more storage space during times of crisis.

Wrap Up

With better planning and better use of new technology, the steel supply chain has a proper chance to recover to its former glory. Furthermore, if we move forward applying these rules, there's a good chance we'll see an improvement in the years to come.